

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

2. (currently amended): A radiation image detecting system comprising a solid radiation detector comprising a conversion means which converts radiations bearing thereon image information to electric charges, and a two-dimensional image detecting means which detects the electric charges obtained by the conversion ~~and is formed by a two-dimensional array of a plurality of solid radiation detecting elements, each corresponding to a picture element,~~

wherein the improvement comprises a high frequency component attenuation means which attenuates high frequency components of the electric charges bearing thereon high frequency components of the image information not lower than a Nyquist frequency, which is defined by the pitches of the ~~array of the solid radiation~~ two-dimensional image detecting elements, so that aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency becomes not stronger than 30% of intrinsic noise power at a frequency equal to a half of the Nyquist frequency, in which the high frequency component attenuation means comprises a phosphor layer which generates visible light upon exposure to radiations bearing thereon the image information and is provided on the conversion means side of the solid radiation detector and the conversion means generates electric charges upon exposure to the visible light generated by the phosphor layer.

3. (original): A radiation image detecting system as defined in claim 2 in which the phosphor layer is removable.

4. (currently amended): A radiation image detecting system as defined in ~~Claim~~claim 2 in which the thickness and/or the material of the phosphor layer is variable.

5. (new): The system of claim 2, further including a transparent conductor disposed over the conversion means.

6. (new): A radiation image detecting system comprising:

a conversion means for converting radiation bearing thereon image information into electric charges;

a two-dimensional detecting means for detecting the electric charges obtained by the conversion means; and

a high frequency component attenuation means for selectively attenuating high frequency components of the electric charges bearing thereon high frequency components of the image information not lower than a Nyquist frequency, which is defined by pitches between detecting elements in the two-dimensional detecting means, so that aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency becomes not stronger than 30% of intrinsic noise power at a frequency equal to a half of the Nyquist frequency,

in which the high frequency component attenuation means comprises a phosphor layer which generates visible light upon exposure to radiations bearing thereon the image information

and is provided on the conversion means side and the conversion means generates electric charges upon exposure to the visible light generated by the phosphor layer.

7. (new): The system of claim 6, further including a transparent conductor disposed over the conversion means.

8. (new): A radiation image detecting system comprising:

a radiation-to-electric charge converter;

two-dimensional charge detectors detecting the electric charges obtained by the converter; and

a high frequency component attenuator, said attenuator attenuating high frequency components of the electric charges bearing thereon high frequency components of image information not lower than a Nyquist frequency, which is defined by the pitches of the two-dimensional charge detectors, so that aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency becomes not stronger than 30% of intrinsic noise power at a frequency equal to a half of the Nyquist frequency,

in which the high frequency component attenuator comprises a phosphor layer which generates visible light upon exposure to radiations bearing thereon the image information and is provided on the converter side, and the converter generates electric charges upon exposure to the visible light generated by the phosphor layer.

9. (new): The system of claim 8, further including a transparent conductor disposed over the converter.

10. (new): The system of claim 2, wherein the high frequency attenuation means comprises at least one of an adjustable material and thickness of the conversion means.

11. (new): The system of claim 2, wherein the conversion means converts radiation bearing thereon image information directly into the electric charges.